



**TOWARDS CLEAN PRODUCTION : CONTACT LIST**

The following groups and individuals contribute towards implementing Clean Production. Although there are some duplications, this alphabetically listed guide has been divided into two main issues:

	<u>PAGE</u>
• <b>CLEAN PRODUCTS:</b>	<b>2.</b>
<b>those who work at the product design level to increase resource efficiency and safer material use</b>	
<b>This section is divided into:</b>	
-Eco-design	<b>2.</b>
-Life Cycle Assessment	<b>7.</b>
-Alternative Materials, Materials Policy and Indices	<b>9.</b>
• <b>POLLUTION PREVENTION/(CLEANER PRODUCTION):</b>	<b>17.</b>

those who work at minimizing toxic materials and improving resource efficiency within various manufacturing processes. Listed alphabetically by country.

Additional listings are given for the following types of categories which cover both products and processes.

• <b>PUBLIC ACCESS TO INFORMATION advocates</b>	<b>26.</b>
• <b>ECOLOGICAL ECONOMICS advocates</b>	<b>27.</b>
• <b>LABOUR AND TRANSITION PLANNING</b>	<b>30.</b>
• <b>BUSINESS POLICIES ON CLEANER PRODUCTION</b>	<b>32.</b>
• <b>EDUCATIONAL INSTITUTIONS promoting clean(er) production</b>	<b>34.</b>
• <b>NETWORKS involved with cleaner production</b>	<b>36.</b>
• <b>SOME PUBLICATIONS are given at the end of each section or mentioned in italics at the end of an organization's name.</b>	

This Clean Production Contact List was prepared by Clean Production Action  
 - a network dedicated to integrating clean production into public advocacy work  
 PO Box 12201  
 London SW17 9ZL  
 UK  
 Tel/Fax: (44) 181 672 4354  
 Email: bthorpe@web.net  
 Contact: Beverley Thorpe  
<http://www.rec.hu/poland/wpa/cpa.htm>

Note: While comprehensive, this listing is by no means complete. We encourage readers to send us information on new contacts, networks, and sources of information so as to continuously update this work. Also, while we have made every effort to verify the information contained in this resource guide, some addresses, emails, or web pages might be incorrect. Please let us know if there are any problems.



### WHAT IS CLEAN PRODUCTION?

Clean Production goes beyond pollution prevention. It is a product-oriented approach to environmental management. It recognises that most environmental problems stem from our unsustainable production and consumption practices. Clean Production provides a path towards sustainable and circular (closed-loop) production-consumption systems similar to those found in nature. In essence this means using renewable, non-hazardous materials and energy efficiently while conserving biodiversity. For non-renewable materials closed-loop recycling systems should be employed to eliminate the need for new extraction.

The transition to Clean Production will rely increasingly on smaller and cleaner water, material and energy flows, and will therefore require us to reduce our use of these resources. This can be achieved, for example, by improved product design that increases durability and facilitates the reuse of components and materials. In the first instance, a Clean Production approach questions the very need for the product or looks at how else that need could be satisfied or reduced.

Clean Production implements the Precautionary Principle. It also acknowledges the need for public participation and social diversity in political and economic decision making.

## CLEAN PRODUCTS

### • ECODESIGN

**Ecodesign is the integration of environmental criteria into product design. Such criteria covers choice of safer material, pursuit of resource and energy efficiency and attention to material re-use at the end of the product's first consumer life.**

**Carnegie Mellon University**  
Green Design Initiative  
5000 Forbes Avenue  
Pittsburgh, PA 15213-3890  
Tel : (1) 412-268-2299  
Email: [nc0y@andrew.cmu.edu](mailto:nc0y@andrew.cmu.edu)  
<http://www.ce.cmu.edu/GreenDesign>

Promotes environmentally conscious engineering, product and process design, manufacturing, and architecture.

**Center for Clean Products and Clean Technologies**  
**University of Tennessee Knoxville**  
600 Henley Street, Suite 311  
Knoxville, TN 37996-4134  
Tel: (1) 423 974 8979  
Fax: (1) 423 974 1838  
Email: [gadavis@utk.edu](mailto:gadavis@utk.edu)  
<http://www.utk.edu/ph/>  
Contact: Gary Davis

Expertise in networking European developments to North America, focus on product chain and material flows. One of the first centers in the United States to specialize in clean product development.

**Centre for Design at Royal Melbourne Institute of Technology (RMIT)**  
GPO Box 2476V  
Melbourne Victoria 3001 AUSTRALIA  
Tel: (61) 3 9925 2362  
Fax: (61) 3 9639 3412  
Email: [cfid@rmit.edu.au](mailto:cfid@rmit.edu.au)  
<http://www.cfd.rmit.edu.au>

Develops and demonstrates new design methods, works with industry to design greener products, advises government on policies to reduce environmental impacts through design and maintains a national and international network of research and information exchange.



### **The Centre for Sustainable Design**

Faculty of Design  
The Surrey Institute of Art and  
Design  
Falkner Road  
Farnham Surrey GU9 7DS  
UNITED KINGDOM  
Tel: (44) 1252 732 229  
Fax: (44) 1252 732 274  
Email: [spd@cfsd.org.uk](mailto:spd@cfsd.org.uk)  
<http://www.cfsd.org.uk>  
Contact: Martin Charter or Ann  
Chick

The Centre publishes *the Journal of Sustainable Product Design*, holds conferences and operates a listserv.

### **The Consortium on Green Design and Manufacturing (CGDM)**

Mechanical Engineering  
5145 Etcheverry Hall  
Berkeley, CA 94720-1740  
Tel: (1) 510-642-9359  
Fax: (1) 510-643-5599  
<http://greenmfg.me.berkeley.edu/green/Home/Index.html>  
Contact: Paul S. Sheng

The Consortium on Green Design and Manufacturing encourages multidisciplinary research and education on environmental management and pollution prevention issues in critical industries. Projects include end of life management, product design and manufacturing design.

### **Delft University of Technology**

Faculty of Industrial Design  
Engineering  
Section for Environmental Product  
Development and  
Network of Innovation Centres in  
the Netherlands (ICNN)  
EcoDesign project  
Jaffalaan 9  
2628 BX Delft, THE NETHERLANDS  
Tel: (31) 15 278 2738  
Fax: (31) 15 278 2956  
Email: [a.g.c.vanboeijen@io.tudelft.nl](mailto:a.g.c.vanboeijen@io.tudelft.nl)  
<http://www.io.tudelft.nl/research>.

[mpo/index.html](http://mpo/index.html)

The Centre publishes *the Green Product Design* newsletter  
Email: [Lroos@IO.TUdelft.NL](mailto:Lroos@IO.TUdelft.NL) for more details

Delft is at the forefront of material resource reduction projects and works internationally on indigenous product design as well as nationally with Dutch companies as part of the innovation network. The Centre has also published an EcoDesign Manual: *A Promising Approach to Sustainable Production and Consumption* (see Publications).

### **Demufacturing Partnership Program**

Rutgers University  
Ackerson Hall, Room 300A  
180 University Avenue  
Newark, NJ 07102  
Tel: (1) 201-648-5683  
Fax: (1) 201-648-1175  
Email: [jmmahon@andromeda.rutgers.edu](mailto:jmmahon@andromeda.rutgers.edu)  
Contact: Joan Mahon  
<http://newark.rutgers.edu/~jmmahon/dpp/>

Encourages development of demufacturing as an environmental initiative that produces economic development. Disseminates new information about demufacturing to industry and academia through conferences; addresses key concerns of manufacturers and demmanufacturers of computers, electronics and automobiles through conferences and newsletters; and informs urban municipalities of the benefits of demufacturing as a means of providing jobs while reducing waste.

### **Ecodesign website –**

Emails: [edrs@infoserve.net](mailto:edrs@infoserve.net)  
<http://www.ecodesign.bc.ca>  
Contains links and information on sustainable design.

### **Eindhoven University of Technology**

Reverse Logistics (Take-back



technology)  
 Stan Ackermans Institute  
 Logistic Control System,  
 Pav.L17  
 P.O. Box 513, 5600 MB  
 Eindhoven, THE NETHERLANDS  
 Tel. (31) 40 247 44 04  
 Fax. (31) 40 246 20 83  
<http://www.tue.nl/ivo/lbs/main/index.htm>

Reverse Logistics is the process of continuously taking back products and/or packaging materials to avoid further waste disposal in landfills or high energy consumption through the incineration process.

#### **European PREPARE Working Group**

Aries Environmental Innovation  
 University Business Centre Nijmegen  
 Toernooiveld 106  
 P.O. Box 31070  
 6503 CB Nijmegen THE NETHERLANDS  
 Tel: (31) 24 3528804  
 Fax: (31) 24 3540090  
 E-mail: ariesenvi@wxs.nl  
<http://www.io.tudelft.nl/research/mpo/prepare/home.htm>  
 Contact: Marcel Crul

PREPARE, a European initiative on pollution prevention within maintains workshops and holds conferences for specific industrial sectors. One initiative entitled CARE 2000 examined the potential for cleaner electronic products and end of life waste reduction.

#### **Industrial Ecology and Sustainable Product Design**

Norwegian Academy of Technological Sciences  
 Lerchendal Gard  
 N-7034 Trondheim NORWAY  
 Tel: (47) 73 59 54 63  
 Fax: (47) 73 59 14 10  
 Email: ntva@kjemi.unit.no

*Seminar papers* available from  
 NTVA, 1994

#### **McDonough Braungart Design Chemistry**

619 East High St.  
 Charlottesville, VA 22902  
 tel. (1) 804-295-1111  
 fax (1) 804-295-1500  
<http://www.mbdc.com>

MBDC partners with companies on in-depth, multifaceted analysis and synthesis of products and processes to comply with a series of protocols for "sustainable design.". MBDC has developed its index of sustainability to measure eco-compatibility of processes and products and advocates a Cradle-to-Cradle life cycle optimisation approach based on reuse of wastes.

#### **Milan Polytechnic Institute**

Research Unit on Design, Product, Environment  
 CIRIS – Centro interdipartimentale diricerca  
 Innovazione per la sostenibilita ambientale  
 Dipartimento DLTEC  
 Via Bonardi 3  
 20133 Milano ITALY  
 Tel/fax: (39) 2 2399 5124  
 Email: manzini@cdc8g5.cdc.polimi.it  
 Contact: Ezio Manzini

#### **The Open University Faculty of Technology (Design)**

Design Innovation Group  
 Walton Hall  
 Milton Keynes MK7 6AA  
 UNITED KINGDOM  
 Tel: (44) 190 8653 970  
 Fax: (44) 190 8654 052  
 Email: R.Roy@open.ac.uk  
<http://www.unido.org/services/environment/envncpc/envncpc2.htmls>  
 Contact: Dr. Robin Roy

#### **Product-Life Institute**

P.O. Box 3632  
 CH-1211 Geneva 3 SWITZERLAND  
 Tel: (41) 22 346 3932  
 Fax: (41) 22 3472 078  
 Email: geneva.association@iprolink.ch



Contact: Mr. Walter R. Stahel

Expert in material reuse, resource efficiency and the role of products as services.

**Sustainable Technological Development (STD)**

Duurzame Technologische Ontwikkeling (DTO)

Postbus 6063

2600 JA Delft THE NETHERLANDS

Contact: Prof. Philip Vergragt

Tel: (31) 15 2697 544

Fax: (31) 15 2697 547

Email: vergragt@wtm.tudelft.nl

The STD – an initiative and report of five Dutch government ministries - explores what is needed to achieve material sustainability using a backcasting approach from the year 2020. It concludes “technology will not save us” and that the factor 10 to 40 resource efficiencies that are necessary can only be achieved via radical material substitution and the adoption of service economies. *English summary available.*

**Technical University of Denmark (TUD)**

Institute for Product Development

DTH Bygning 423

DK-2800 Lyngby DENMARK

Tel: (45)45 93 2522

Fax: (45)45 93 2529

**TU-Wien University of Technology Vienna**

Institut fuer allgemeine Maschienenlehre,

Abteilung Konstruktionslehre. (E321/2)

Information point on ECODSIGN

Getreidemarkt 9

1060 Wien AUSTRIA

Tel: (43) 1 58801/ 4859

Fax: (43) 1 5865847

Email: wimmer@ft.tuwien.ac.at

<http://www.ecodesign.at/ecodesign/>

Contact: Mr. Wolfgang Wimmer

**United Nations Environment Programme Working Group on Sustainable Product**

**Development**(UNEP-WG-SPD)

J.H. van 't Hoff Institute (B-315),

Nieuwe Achtergracht 166

1018 WV Amsterdam, THE NETHERLANDS

Tel: (31) 20 525 6268

Fax: (31) 20 625 8843

E-Mail: [unep@unep.frw.uva.nl](mailto:unep@unep.frw.uva.nl)

<http://unep.frw.uva.nl/>

Contacts: Hans van Weenen, Anne Elsen and Yorick Benjamin

An excellent source of information on product design, resource efficiency and renewable materials, particularly from an indigenous design viewpoint. Provides international network directory, listserv and upcoming conference events. Web page contains useful information and contacts.

**U.S. Environmental Protection Agency**

Office of Pollution Prevention & Toxics EE&T Division - Design for the Environment Program

401 M St., S.W. 3404

Washington DC 20460

Tel: (1) 202-260-1815

Fax: (1) 202-260-0178

<http://www.epa.gov/opptintr/dfe/>

U.S. Environmental Protection Agency's (EPA's) Design for the Environment (DfE) Program helps businesses incorporate environmental considerations into the design and redesign of products, processes, and technical and management systems. Initiated by EPA's Office of Pollution Prevention and Toxics (OPPT) in 1992, DfE forms voluntary partnerships with industry, universities, research institutions, public interest groups, and other government agencies. To date most work has been on energy efficiency.



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**PUBLICATIONS**

Clean Production Strategies:

Developing Preventive Environmental Management in the Industrial Economy

Ed. Tim Jackson

Stockholm Environment Institute

Lewis Pub. 1994

An excellent academic overview of Clean Production focusing on both clean products and clean production.

Material Concerns: Pollution, Profit and Quality of Life

Tim Jackson,

Routledge, 1997

The second in the series by the same author. A simple overview of clean production/product materials.

EcoDesign Manual: A Promising Approach to Sustainable Production and Consumption

Available from:

UNEP Industry and Environment Ctr.

39-43 Quai Andre Citroen

75739 Paris Cedex 15 FRANCE

Tel: (33) 1 44 37 14 50

Fax (33) 1 44 37 14 74

Email: [unepie@unep.fr](mailto:unepie@unep.fr)

<http://www.unepie.org/home.html>



## LIFE-CYCLE ASSESSMENT (LCA)

LCA is the qualitative or quantitative method of assessing the impact of products from 'cradle to grave: raw material extraction, manufacturing or processing, consumer use and disposal. LCAs were developed as a tool to improve product design but have become increasingly used to advertise the benefits of one product over another. LCAs are intrinsically based on value judgements and availability of data, hence all assumptions should be publicized if companies use LCAs as a tool for promotion.

### Center for Sustainable Systems

School of Natural Resources and Environment  
University of Michigan  
Tel: (1) 734-764-3194  
Fax: (1) 734-647-5841  
Email: gregak@umich.edu  
<http://www.umich.edu/~nppcpub/>  
Contact: Gregory A. Keoleian

Provides information on life cycle assessment, product design, *case studies*.

### Ecosite – The World Wide Resource for LCA

Email: [ecosite@ecosite.co.uk](mailto:ecosite@ecosite.co.uk)  
<http://www.ecosite.co.uk/>  
Contains detailed information, software and links on life-cycle assessment

### Environment Canada

Hazardous Waste Branch  
Ottawa, Ontario  
CANADA K1A 0H3  
Tel: (1) 819-997-3060  
Fax: (1) 819-953-6881  
Email: [kbrady@synapse.net](mailto:kbrady@synapse.net) or  
[Apaynter@synapse.net](mailto:Apaynter@synapse.net)  
<http://www.ec.gc.ca/ecocycle>  
Publishes an *Ecocycle Newsletter* on life-cycle tools, management and product policy

### The Global Ecolabelling Network (GEN)

GEN Secretariat  
Swedish Standards Institution  
Box 3295, S-103 82 Stockholm, SWEDEN  
St Eriksgatan 115

Tel: (46) 8-610-30-00  
Fax: (46) 8-34-20-10  
E-mail: [gen.secretariat@sis.se](mailto:gen.secretariat@sis.se)  
<http://www.interchg.ubc.ca/ecolabel/gen.html>

Non-profit association of ecolabelling organizations from around the world. These ecolabelling organizations set criteria for and certify products and services with lower environmental burdens and impacts than comparable products with the same function.

### GreenSeal

1400 16th St., NW, Suite 300  
Washington, DC 20036  
Tel: (1) 202-588-8400  
Fax: (1) 202-588-8465  
WWW: <http://www.greenseal.org/>

Independent organization that promotes the manufacture and sale of environmentally responsible consumer products. It sets environmental standards and awards a "Green Seal of Approval" to products that cause less harm to the environment than other similar products.

### Pre

Product ecology consultants  
Plotterweg 12  
3821 BB Amersfoort  
THE NETHERLANDS  
Tel: (31) 33 4555022  
Fax: (31) 33 4555024  
Email: [info@pre.nl](mailto:info@pre.nl)  
<http://www.pre.nl>



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Pre markets a popular Life Cycle Assessment software tool available on CD ROM for personal use.

**The Society of Environmental Toxicology and Chemistry (SETAC)**

1010 North 12th Avenue  
Pensacola, FL 32501-3367  
Tel: (1) 850-469-1500  
Fax: (1) 850-469-9778  
Email: [setac@setac.org](mailto:setac@setac.org)  
WWW: <http://www.setac.org>

An independent, professional organization, SETAC is the lead organization for guidance on life-cycle assessment

**Sophus Berendsen A/S**

Klausdalsbrovej 1  
DK-2860 Soborg DENMARK  
Tel: (45) 3 969 8500  
Fax: (45) 3 969 7300  
Email: [kim.christiansen@SBI.BERENDSEN.COM](mailto:kim.christiansen@SBI.BERENDSEN.COM)  
Contact: Kim Christiansen

Expert in life cycle assessment development and safer product substitution.

**Dr. Steven B. Young**

154 Glasgow Street North  
Guelph, Ontario  
CANADA N1H 4W8  
Tel. (1) 519-822-1660  
Fax (1) 519-822-0796  
<http://www.io.org/~lca>  
<http://www.trentu.ca/lca>  
Consultant on LCA and maintains a website which explains methodology.



## ALTERNATIVE MATERIALS, MATERIALS POLICIES AND INDICES

The following groups research the sustainability of resource availability, the speed of material flow through societies and material use by industrial sectors and consumers. Indices have been developed to quantify resource depletion by industrial production and consumer product use. Some organizations research safer material development based on ecological criteria. Others research and publicize the level of increased efficiencies that industrialized societies must achieve to halt our current unsustainable level of material depletion.

### **ACTIN (Alternative Crops Technology Interaction Network)**

Tel: (44) 1243 53 88 96  
 Fax: (44) 1243 53 88 97  
 Email: [info@actin.co.uk](mailto:info@actin.co.uk)  
<http://www.actin.co.uk>

ACTIN is the national industry-led initiative to promote crop-derived oil, fiber, starch and specialty chemical products as renewable raw materials for industry, in place of petrochemical sources. ACTIN is the UK representative in IENICA (Interactive European Network for Industrial Crops and their Applications) and ERMA (European Renewable Raw Materials Association).

### **Agricultural Research Department (DLO-NL)**

Agrotechnological Research Institute (ATO-DLO)  
 Bornsesteeg 59  
 PO Box 17  
 NL – 6700 AA Wageningen  
 THE NETHERLANDS  
 Tel: (31) 317 47 50 13  
 Fax: (31) 317 47 53 47  
 Email: [J.T.P.DERKSEN@ATO>DLO.NL](mailto:J.T.P.DERKSEN@ATO>DLO.NL)

Expertise in product design from renewable materials

### **Agricultural University of Norway**

Department of Engineering  
 Box 5065  
 1432 Aas NORWAY  
 Tel: (47) 6494 8666  
 Fax: (47) 6494 8810  
<http://www.nlh.no/sevunlh>

</kortekurs/98306.htm>

Expertise in ecological engineering such as biological systems for water reuse

### **Center for Environmentally Appropriate Materials**

University of  
 Massachusetts Lowell  
 One University Avenue  
 Lowell, MA 01854-2881  
 Tel: (1) 508-934-3275  
 Fax: (1) 508-934-3050  
 Contact: Charlie Pace

The Center has produced a *Reader on Bio-based materials* and sponsors research on green chemistry, sustainable materials and technology. See also, Toxics Use Reduction Institute, University of Massachusetts, Lowell.

### **The Industrial Hemp Network**

P.O. Box 1716  
 Sebastopol, CA 95473  
 Tel: (1) 707-823-2800  
 Fax: (1) 707-823-2424  
 E-mail: [info@hemptech.com](mailto:info@hemptech.com)  
<http://hemptech.com/>

One example of the growing network to revitalize an ecological and renewable resource.

### **Institute for Local Self-Reliance**

National Office  
 2425 18th Street, NW  
 Washington, DC 20009-2096  
 Tel: (1) 202-232-4108  
 Fax: (1) 202-332-0463  
 WWW: <http://www.ilsr.org/>



Contact: David Morris  
**Midwest Office**  
 1313 Fifth Street SE  
 Minneapolis, MN 55414-1546  
 Tel: (1) 612-379-3815  
 Fax: (1) 612-379-3920

The Institute (ILSR) works on local solutions and material flows and helped to revitalize the Carbohydrate Economy. ILSR has an excellent web site with information on plant based materials and links. They also have an extensive publications list.

### **International Ecological Engineering Society**

Centre for Applied Ecology  
 Bahnhofstrasse 2  
 CH-6110 Wolhusen SWITZERLAND  
 Tel/fax: (41) 41 490 40 74  
 Contact: Dr Johannes Heeb

An interesting international network of water and waste engineers that work according to Eco-criteria. Expertise in plant purification and other biological techniques for sewage and waste water as well as consumer waste. The society holds conferences and produces a *technical journal*.

### **International Institute for Environment and Development (IIED)**

3 Endsleigh Street  
 London WC1H ODD  
 UNITED KINGDOM  
 Tel: (44) 171 388 2117  
 Fax: (44) 171 388 2826  
 Email: [nick.robins@iied.org](mailto:nick.robins@iied.org)  
<http://www.oneworld.org/iied>  
 Contact: Mr. Nick Robins

Conducts research on business and sustainability

### **International Institute for Sustainable Development (IISD)**

161 Portage Avenue E., 6<sup>th</sup>  
 Winnipeg, Manitoba,  
 Canada R3B 0Y4

Tel: (1) 204-958-7700  
 Fax: (1) 204-958-7710  
 Email: [info@iisd.ca](mailto:info@iisd.ca)  
<http://iisd.ca/susprod/default.htm>

IISD's mission is to promote sustainable development in decision making internationally and within Canada. IISD has the following areas of activity: business strategies, trade and sustainable development, sustainable communities, and measurement and indicators. IISD's papers and email conference on sustainable production and consumption are available on the website.

### **KIEM/Proterra**

109 Rapanburgerstraat  
 Amsterdam THE NETHERLANDS  
 Tel: (31) 20 638 5678  
 Fax: (31) 20 683 4905  
 Email: [proterra@aglink.nl](mailto:proterra@aglink.nl)

Expertise in product design from renewable materials

### **The National Center for Remanufacturing and Resource Recovery**

Rochester Institute of Technology  
 One Lomb Memorial Drive, Rochester, NY  
 14623  
 Tel: (1) 716-475-2411  
<http://www.reman.rit.edu/index.htm>

Provides technical assistance and applied research and development to the remanufacturing industry and manufacturers interested in remanufacturing and resource recovery techniques.

### **Oko-Institut e.V.**

Institute for Applied Ecology Product and Chemistry Division  
 Postfach 6226  
 79 038 Freiburg GERMANY  
 Tel: (49) 761 452 950  
 Fax: (49) 761 475 437



Contact: Dr. Rainer Griesshammer  
Expertise on material flows

### **Ökopol,**

Nernstweg 32-34,  
22765 Hamburg, GERMANY  
Tel: (49) 40 39 16 28;  
Fax: (49) 40 399 006 33  
Email: info@oekopol.de  
Contact: Joachim Lohse

Expertise on extended producer responsibility and material flows.

### **The Rockefeller University**

Program on the Human Environment  
1230 York Ave, Box 234  
New York, NY 10021-6399  
Tel: (1) 212-327-7842  
Fax: (1) 212-327-7519  
Email: phe@rockvax.rockefeller.edu  
<http://phe.rockefeller.edu>

Examines how long-run technical change relates to productivity and efficiency of energy, materials, land, and other resources, and the consequences for human populations. Elaborates the technical vision of a "micro-emissions society."

### **Rocky Mountain Institute**

1739 Snowmass Creek Road  
Snowmass, CO 81654-9199  
Tel: (1) 970-927-3851  
Fax: (1) 970-927-3420  
<http://www.rmi.org/>

Innovative solutions on materials, water, and energy efficiency.

### **Swedish Ecocycle Commission**

Ministry of the Environment  
S-103 33 Stockholm SWEDEN  
Tel: (46) 8 405 10 00  
Fax: (46) 8 20 46 66  
Email: siv.naslund@environment.ministry.se  
<http://www.agenda21.se/kretslopps/english.htm>

The Ecocycle Commission was established by the Swedish Government in 1993 in order to pursue and co-ordinate work on ecocyclic issues. The Commission is spearheads the adaptation of society to ecocyclic principles and bears the overall responsibility for promoting the development of new methods for managing resources, materials and goods (including work on Extended Producer Responsibility). The Ecocycle Commission has published several reports, most in Swedish

### **Technical University Graz**

Institute of Biotechnology  
A-8010 Petersgasse AUSTRIA  
Tel: (43) 316 873 8405  
Fax: (43) 316 873 8434  
Email: moser@biote.tu-graz.ac.at  
Contact: Anton Moser

Researches and promotes Eco-criteria for decision making in new use. Coordinates International Society for Ecological Engineering.

### **University of Manchester and UMIST**

Material Science Centre  
Grosvenor St  
Manchester M2 7HS  
UNITED KINGDOM  
Tel: (44) 161 200 3574  
Fax: (44) 161 200

Conducts extensive research on biopolymers.

### **The University of Reading**

Centre for Biomimetics  
TOB 1  
Earley Gate  
Reading RG6 2AT  
UNITED KINGDOM  
Tel: (44) 1734 318 418  
Fax: (44) 1734 352 421

Researches new materials based on the properties of natural materials.



**U.S. Environmental Protection Agency  
Green Chemistry Initiative  
(EPA) Office of Pollution Prevention &**

Toxics EE&T Division  
401 M St., S.W. 3404  
Washington DC 20460  
Tel: (1) 202-260-1815  
Fax: (1) 202-260-0178  
<http://www.epa.gov/opptintr/dfe/greenchem/index.html>

Green Chemistry is described as the design, manufacture, and use of environmentally benign chemical products and processes that prevent pollution and reduce environmental and human health risks. The Green Chemistry Program supports fundamental and innovative chemical technologies that are cost-effective, and useful to industry. BEWARE: The web site cites the more efficient production of the herbicide, Roundup, as an example of producing benign intermediates for toxic products.

**Wuppertal Institut für Klima Umwelt  
und Energie  
Div. for Material Flows and Structural  
Change**

Postfach 100480  
D-42004 Wuppertal

GERMANY

Tel: (49) 202 2492 163  
Fax: (49) 202 2492 138  
Email: [fritz\\_hinterberger@wupperinst.org](mailto:fritz_hinterberger@wupperinst.org)  
<http://www.wupperinst.org>  
Contact: Dr. Fritz Hinterberger

Wuppertal publishes an on-line newsletter, listserv and extensive publications on resource efficiency. It also publishes a newsletter on ecological economics, such as ecological tax reform and resource efficiency/reductions. It has many departments dealing with various aspects of product life cycle as well as sustainability indices (see publications).

**Yale School of Forestry &  
Environmental Studies**

Program on Solid Waste Policy  
205 Prospect Street  
New Haven, CT 06511-2189  
Tel: (1) 203 432 3253  
Fax: (1) 203 432 5912  
Email: [reid.lifset@yale.edu](mailto:reid.lifset@yale.edu)  
<http://www.yale.edu/pswp/>  
Contact: Reid Lifset  
Expertise on extended producer responsibility. Also editor of *Journal of Industrial Ecology* (see publications)



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**MATERIAL INDICES**

**The following are three ways of quantifying the ecological burden of product resource use. They can be used to assess substitute technology and products as well as provide an important educational tool.**

**Ecological Footprints**

University of British Columbia  
School of Community and Regional Planning  
6333 Memorial Road  
Vancouver, BC  
CANADA V6T 1ZU  
Tel: (1) 604 822 3276  
Fax: (1) 604-822-3787  
Email: wrees@unixg.ubc.ca  
mathiswa@dinocoacade.uv.mx  
Contact: William Rees or Matthias  
Wackernagel

**Ecological Rucksack/Material Intensity per Unit of Service (MIPS)**  
Wuppertal Institut für Klima Umwelt und Energie  
Div. for Material Flows and Structural Change  
Contact: Dr. Fritz Hinterberger  
(See above)

**Sustainable Process Index**  
Institute of Chemical Engineering  
Graz University of Technology  
A-8010 Graz  
Inffeldgasse 25, AUSTRIA  
Tel: (43) 316 873 7464  
Fax: (43) 316 873 7469  
Email: kro@glvt.tu-graz.ac.at  
Contact: Christian Krotscheck  
or Mikail Narodoslowsky



## PUBLICATIONS

A Fair Share : environmental space as a tool for changing consumption patterns.

Fjelstad, Oivind

<http://www.af.nfr.no/af/af-pub/rapp94-02/kap-01.html>

Concept of Sustainable Islands:  
A network of sustainable regions

STENUM GmbH

Sparbersbachgasse 22

A-8010 Graz

Austria

Contact: Heize Peter Wanner

Ecological footprints: making tracks toward sustainable cities.

Rees, William E.

University of British Columbia

<http://www.iisd.ca/linkages/consume/brfoot.html>

Ecological footprints of nations: how much nature do they use? How much nature do they have?

Wackernagel, Mathis et al.

paper commissioned and funded by the Earth Council for Rio + 5, 13-19 March, 1997

Centre for Sustainability Studies Xalapa, Mexico, 1997.

<http://www.iisd.ca/linkages/consume/mwfoot.html>

The Future of the Global Environment: a model-based analysis supporting UNEP's first global environment outlook.

Bakkes, Jan and Jaap van Woerden et al (eds.).

Netherlands Institute for Public Health and the Environment,

Bilthoven, Netherlands: 1997.

Factor Four: Doubling Wealth, Halving Resource Use

Ernst von Weizacker, Amory B Lovins and Hunter Lovins

"The purpose of this book is practical change," the authors note, and go on to

chronicle 50 examples of quadrupling resource productivity -- 20 each for energy and material productivity, and 10 for transportation productivity.

<http://www.eco-ops.com/eco-ops/EQE/books/welcome.html>

Factor Ten: Factor 10 Club. "The Carnoules Declaration".

Development Alternatives, 4(12): p. 1-4.

Factor 10.

Hansen, Karl

Developing Ideas 1 (January 1996): p4.

<http://192.197.196.1/digest/jan96/3jan96.htm>

The fossil makers: Factor 10 and more

Schmidt-Bleek, Friedrich and Wuppertal Institute for Climate, Environment, Energy. Birkhauser Basel, Germany 1994.

The greening of industrial ecosystems.

Allenby, Braden R. and Deanna J.

Rickards, (eds.).

National Academy Press,

Washington, D. C.: 1994.

Genetic Engineering: Dreams or Nightmares?

The Brave New World of Bad Science and Big Business

Dr Mae Wan Ho

Third World Network

A-60 Hauz Khas, New Delhi 110 016

INDIA

Tel: (91) 11 696 8077

Fax (91) 11 685 6795, 462 6699

Email: vandana@tw.n.unv.ernet.in

The revitalization of renewable material use has led to the growth of genetically engineered crops. This book gives a detailed overview of why genetic engineering is a global threat to biodiversity and ecosystem stability.



How much is enough? : the consumer society and the future of the Earth.

Durning, Alan Thein.  
Worldwatch environmental alert series.  
W.W. Norton; New York: 1992.

How to Measure Sustainability?

Comparison of flow based (mass and/or energy) highly aggregated indicators for eco-compatibility; Christian Krotscheck, and M Narodoslawsky  
Order from Graz University (See above)

**International Institute for Sustainable Development**

For an extensive library of documents on Sustainable Consumption and Production, see IISD's Linkages at  
<http://www.iisd.ca/linkage/consume/consume.html>

Journal of Industrial Ecology

Describes a range of policies that spring from industrial ecological principles such as LCA's, Extended Producer Responsibility  
MIT Press  
Five Cambridge Center  
Cambridge MA 02142  
Tel: (1) 617 253 2889  
Fax: (1) 617 577 1545  
<http://mitpress.mit.edu/JIE>

Material world: a global family portrait.

Menzel, Peter.  
Sierra Club Books  
San Francisco, CA, 1995.

"MIPS re-visited".

Schmidt-Bleek, Fredrich and Wuppertal Institute.  
Fresenius Environment Bulletin (1993) vol. 2: 407-412.

Population and consumption issues for environmentalists: a literature search and bibliography prepared by the Population Reference Bureau for the Pew Charitable Trusts' Global Stewardship Initiative.  
Washington, D.C.: 1993.

Product Policy in Europe:  
New Environmental Perspectives

Frans Oosterhuis, F Rubik, G Scholl  
IOW  
Bergheimer Strasse 95  
D-69115 Heidelberg  
Tel: (49) 6221 167954  
Fax: (49) 6221 27060

The Product Side of Pollution Prevention:  
Evaluating the Potential for Safe  
Substitutes

US EPA and University of Tennessee  
Center for Clean Products and Clean Technologies  
Knoxville, TN 37996-0710  
Available through the US Government  
Printing Office

Redefining the American dream: the search for sustainable consumption

Conference report. Takoma Park, MD  
Merck Family Fund 1995.  
<http://www.iisd.ca/linkages/consume/merck.html>

Resource Flows: The Material Basis of  
Industrial Economies

World Resources Institute  
1709 New York Avenue, NW  
Washington DC 20006 USA  
<http://www.wri.org/wri/>

"Re-Thinking the Materials We Use" Ken

Geiser, Fran Irwin,  
World Wildlife Fund Publications  
Tel: (1) 410-516-6951

Sustainable Water and Waste  
Management in Urban Areas

Otterpolh Wasserkonzepte,  
Kanalstrasse 52,  
D 23552 Lubeck,  
Germany  
Tel: (49) 451 70 200 51  
Fax: (49) 451 70 200 52  
Email: OTTERWASSER@T-online.de

Towards Sustainable Europe

An excellent report on how to reduce resource consumption within Europe based on using Wuppertal Institutes' material indices.  
Available from



**Friends of the Earth Netherlands  
Sustainable Europe Campaign**

PO Box 19199, 1000 D Amsterdam  
THE NETHERLANDS  
Tel: (31) 20 625 6547  
Fax: (31) 20 627 5602  
Email: susteur@foenl.antenna.nl

The Unmanageable Consumer:  
contemporary consumption and its  
fragmentation.

Gabriel, Yiannis and Tim Lang.  
Sage Publications,  
London, UK 1995.

Yearning for balance: views of Americans  
on consumption, materialism and the  
environment. Harwood Group/ Merck  
Family Fund, 1995

[http://www.iisd.ca/linkage/  
consume/harwood.html](http://www.iisd.ca/linkage/consume/harwood.html)

**Wuppertal Institute publications  
(some examples)**

“Increasing Resource Productivity through  
Eco-Efficient Services;”

“How to Reach a Sustainable Economy”;

“Key Words in Environmental Policy”

(March 1995):

- LCA
- Auditing
- Labelling
- Recycling
- Renewable Resources
- Ecological indicators

-Shadow Subsidies: in the  
Area of Automobile Traffic

**POLLUTION PREVENTION/CLEANER PRODUCTION**

Note: Not all information on pollution prevention and cleaner production on the sites of other organisations is necessarily cleaner production. Some of the case studies described within may contain traditional end-of-pipe approaches.

**INTERNATIONAL****Organization for Economic Cooperation and Development (OECD)**

Environment Program  
2, rue André-Pascal  
75775 Paris CEDEX 16  
France  
Tel: (33) 01 45 24 82 00  
Fax: (33) 01 45 24 85 00  
<http://www.oecd.org/env>

The OECD has conducted various projects in recent years to promote Clean Production, particularly in Central and Eastern Europe. OECD is also the lead international organization in Extended Producer Responsibility. They have an extensive document collection on sustainable production and consumption, eco-efficiency, and clean production.

**United Nations Cleaner Production Programme**

Industry and Environment Office 39-43  
Quai Andre Citroen  
75739 Paris Cedex 15 FRANCE  
Tel: (33) 1 44 37 14 50  
Fax (33) 1 44 37 14 74  
Email: [unepie@unep.fr](mailto:unepie@unep.fr)  
<http://www.unepie.org/home.html>

The Cleaner Production Programme of UNEP (United Nations Environment Programme) publishes a newsletter, provides information on case studies via a diskette, convenes a bi-yearly international conference, maintains a variety of workgroups, and coordinates cleaner production centers in various countries conjunction with the UN Industrial Development Organization (UNIDO).

The Programme maintains the International Cleaner Production Information Clearinghouse (ICPIC) which is available on diskette containing:

- 350 technical case studies
- 20 policy case studies
- 550 publications abstracts
- list of 110 institutions

An Internet address ([icpic@unep.fr](mailto:icpic@unep.fr)) enables users to pose questions about cleaner production.



## UNEP CLEANER PRODUCTION WORKGROUPS

**These workgroups develop policies and collect case studies of cleaner production either within specific industrial sectors or by subject matter. Contact them for more details on members and projects.**

### 1. Biotechnology for Cleaner Production

Chair: Prof. Carlos Rolz, Dean  
 Universidad del Valle de Guatemala  
 18 avenida 11-95 zona 15  
 Vista Hermosa III, 01015  
 Apto Postal No. 82  
 01901 GUATEMALA  
 Tel: (502) 364 0336/40  
 Fax: (502) 364 0212  
 Email: crolz@uvg.edu.gt

Co-chair: Mr Ferd Schelleman  
 Institute for Applied Environmental Economics  
 Grote Marktstraat 24  
 25 11 BJ Den Haag  
 THE NETHERLANDS  
 Tel: (31) 70 3464 422  
 Fax: (31) 70 3623 469  
 Email: tria@knoware.nl

### 2. Textiles Production

Chair: Dr Prasad Modak  
 Environmental Management Center  
 105 Hanuman Industrial Estate  
 42 GD Ambekar Road  
 Wadala, Mumbai 400 031 INDIA  
 Tel: (91) 22 416 8217  
 Fax: (91) 22 413 9125  
 Email: pmodak@giasbm01.vsnl.net.in

### 3. Food Industry

Chair: Mr Bob Pagan  
 Technology Management Centre  
 The University of Queensland  
 Brisbane, QLD 4072 AUSTRALIA  
 Tel: (61) 7 33651594

Fax: (61) 7 33656977  
 Email: R.Pagan@mailbox.uq.edu.au  
 http://www.techman.uq.edu.au/  
 UNEP\_CFP/techman.htm#top

### 4. Leather Tanning

Chair: Mr Martin van Vliet  
 Mr Jan-Willem Scheigron  
 BLC The Leather Technology Centre  
 Kings Park Road, Northampton NN3 6JD  
 UNITED KINGDOM  
 Tel: (44) 1604 679 999  
 Fax: (44) 1604 679 998  
 Email: info@blcleathertech.com  
 jan@blcleathertech.com  
 http://www.blcleathertech.com

Co-Chair: Mr. Nick J. Cory  
 Leather Industries Research Laboratory  
 University of Cincinnati,  
 PO Box 21004  
 Cincinnati OH 45221-0014  
 Tel: (1) 513 556 1200  
 Fax: (1) 513 556 2377.  
 Email: corynj@ucunix.san.uc.edu

### 5. Metal Finishing

Chair: Mr Darrell Reeve  
 Cleaner Production Australia  
 PO Box 978  
 Eltham, Victoria 3095 AUSTRALIA Tel:  
 (61) 3 94310730  
 Fax: (61) 3 94312821  
 Email: cpaust@link.net.au

### 6. Pulp and Paper

Chair: Prof. Allan Johansson  
 Technical Research Center of  
 Finland  
 PO Box 205, SF-02151 ESPOO  
 FINLAND  
 Tel: (358) 9 4561  
 Fax: (358) 9 460 493  
 Email: allan.johansson@vtt.fi

### 7. Sustainable Product Development

Chair: Dr. J. C. van Weenen  
 UNEP-WG-SPD



Nieuwe Achtergracht 166  
1018 WV Amsterdam  
THE NETHERLANDS  
Tel: (31) 20 525 6268/6237  
Fax: (31) 20 625 8843  
Email: unep@unep.frw.uva.nl  
<http://unep.frw.uva.nl/>

## 8. Education and Training

Chair: Dr. Donald Huisigh  
International Institute for  
Industrial Environmental  
Economics  
Lund University  
P.O. Box 196  
SE-22100 SWEDEN  
Tel: (46) 46 222 0200  
Fax: (46) 46 222 0210  
Email: donh@lu-iiiee.  
envecon.lu.se

Co-chair: Mr Michael Joergensen  
Technical University of Denmark  
Building 208, DK-2800 Lyngby  
DENMARK  
Tel: (45) 45 93 6677  
Fax: (45) 45 88 1291  
Email: msj@its.dtu.dk

## 9. Policies, Strategies and Instruments

Chair: Mikael Backman and Thomas  
Lindhqvist  
International Institute for  
Industrial Environmental  
Economics  
Lund University  
PO Box 196, 221 00 Lund  
SWEDEN  
Tel.: (46) 46 222 0200  
Fax.: (46) 46 222 0210  
Email: thomas.lindhqvist@iiiee.  
lu.se  
<http://www.lu.se/IIIEE/hp>

Co-chair: Jerry Kotas,  
US Department of Energy  
Golden National Field Office  
Tel.: (1) 303 275 4714

Fax.: (1) 303 275 4788  
Email: kotasg@tcplink.nrel.gov

A joint UNIDO/UNEP programme has established National Cleaner Production Centres in nine countries: Brazil, China, Czech Republic, India, Mexico, Slovak Republic, Tanzania, Tunisia, Zimbabwe. 43 other national cleaner production centres or organizations operate in 37 countries.

## UNIDO

Vienna International Centre  
PO Box 300  
A-1400 Vienna  
Austria  
Tel: (43) 1 21131 5021  
Fax: (43) 1 2092669  
Email: unido-pinfo@unido.org  
WWW: <http://www.unido.org>

UNIDO is the United Nations Industrial Development Overseas office which facilitates technology and information transfer to less or newly industrializing countries. This joint project with UNEP is their main initiative on pollution prevention for industrial sectors. Their web site contains useful clean production information and links.

## World Cleaner Production Society

Federation of Chartered Engineers  
Postboks 2312  
Solli  
0201 Oslo NORWAY  
Tel: (47) 22 53 77 05  
Fax: (47) 22 94 75 01  
Contact: Mr Olav Nedenes

## AUSTRALIA

### Australia Centre for Cleaner Production

Building 251  
RMIT Bundoora East  
Plenty Road, Bundoora  
Victoria 3083 AUSTRALIA  
Tel: (61) 3 9407 6060  
Fax: (61) 3 9407 6061



Contact: Allen Morley

**Cleaner Production Australia**

PO Box 978

Eltham

Victoria 3095 AUSTRALIA

Tel: (61) 3 9431 0730

Fax: (61) 3 9431 2821

Email: cpaust@link.net.au

Contact: Darrell Reeve

Expertise in international cleaner production

**BRAZIL**

**UNEP-NCPC BRAZIL**

Carlos Adilo Maia do

Nascimento, Director

SENAI

Av Assis Brasil 8450

91140-000 Porto Algre

Rio Grande do Sul, BRAZIL

Tel: (555) 13 478848

Fax: (555) 13 478849/3400811

E-mail: ncpb@nutecnet.com.br

**CANADA**

**Canadian Centre for Pollution Prevention**

100 Charlotte St

Sarnia, Ontario

CANADA N7T 4R2

Tel: (1) 800-667-970

Fax: (1) 519-337-3486

Email: c2p2@sarnia.com

<http://c2p2.sarnia.com/>

Publication: *At The Source*

Available in hardcopy or by listserve.

Maintains various documents and listserves, both technical and policy oriented.

**National Office of Pollution Prevention**

Environment Canada

Ottawa, Ontario

CANADA K1A 0H3

Tel: (1) 819 953 1112

Fax: (1) 819 953 7970

Email: kbrady@pobox.com

Now examining sustainable consumption and production

Publication: *Ecocycle*

**CHINA**

UNEP-NCPC China

Ning Duan, Director

Chinese Research Academy of Environmental Sciences

Anwai Beiyuan

Beijing 100012

PEOPLE'S REPUBLIC OF CHINA

Tel: (86) 10 4232255 ext 233

Fax: (86) 10 4232542

Email: emicraes@ns.east.cn.net

**CZECH REPUBLIC**

**UNEP-NCPC Czech**

PO Box 1113

Politických veznu 13

111 21 Prague 1

CZECH REPUBLIC

Tel: (42) 2 2423 or

(42) 2 260 620

Fax: (42) 2 260 639

Email: czechcpc@czn.cz

Contact: Vladimír Dobes

**DENMARK**

**Technical University of Denmark**

Institute of Manufacturing Engineering

Building 425

2800 Lyngby DENMARK

Tel: (45) 45 882522

Fax: (45) 45 933435

Email: pila@unidhp.uni-c.dk

**Danish Technological Institute (DTI)**

Gregersensvej

PO Box 141

DK-2630 Taastrup DENMARK

Tel: (45) 43 50 43 50

Fax: (45) 43 50 70 50

Email: john.kryger@dti.dk

Contact: John Kryger

Expertise in international cleaner production work

**ESTONIA****Estonian Management Institute –  
Pollution Prevention Centre**

21 Sutiste Street  
EE0034 Tallinn ESTONIA  
Tel: (372) 2521629  
Fax: (372) 6542112  
Email: anne@emi.estnet.ee  
Contact: Anne Randmer

**HUNGARY****UNEP-NCPC Hungary**

Budapest University of  
Economic Science  
Fövám ter 8 HUNGARY  
Tel: (36) 1 217 9588  
Fax: (36) 1 218 8076  
Email: skerekes@Pegasus.bke.hu  
Contact: Sandor Kerekes

**INDIA****UNEP-NCPC India**

Utpadakta Bhavan  
Lodi Road  
New Delhi 110 003  
INDIA  
Tel: (91) 11 4611243 or  
(91) 11 4625013  
Fax: (91) 11 4625013  
Email: ncp@de12.vsnl.net.in  
Contact: S.P. Chandak

**IRELAND****Clean Technology Centre (CTC) Cork**

Regional Technical College  
Bishopstown, Cork City  
IRELAND  
Tel: (353) 21 344 864  
Fax: (353) 21 344 865  
Email: cleantechnology@cleansun.  
rtc-cork.ie <http://cleantechnology.rtc-cork.ie>  
Contact: Mr. Dermot Cunningham

**LATVIA****Latvian Pollution Prevention Center**

Perses Street 2-518

Riga LV 1011 LATVIA  
Tel: (371) 782 8250/2227623  
Fax: (371) 7828251  
Contact: Ms Natalia Ladutko

**MALTA****Malta University Services Ltd. Malta**

Cleaner Technology Centre (CTC)  
University Campus  
Msida MALTA  
Tel: (356) 331 734  
Fax: (356) 344 879  
Email: pizzuto@waldonet.net.mt  
Contact: Mr. Anton Pizzuto

**MEXICO****UNEP-NCPC Mexico**

Avenida Politecnico  
s/n Edificio 9 de  
Laboratorios Pesados  
Unidad Profesional Adolfo  
Lopez Mateos  
Zacatenco, 007738  
Mexico,DF, MEXICO  
Tel: (525) 729 6202  
Fax: (525) 729 6201  
Email: Shurtado@vmredipn.ipn.mx  
Contact: Susana Hurtado Baker

**NETHERLANDS****Innovation Centre Amsterdam -  
Haarlem**

Postbus 19408  
1000 GK Amsterdam  
The Netherlands  
Tel: (31) 20 6207 081  
Fax: (31) 20 6207 839  
Email: harriet bottcher.icnn@  
notes.compuserve.com  
Contact: Dr. H. Böttcher

**POLAND****Polish Cleaner Production Centre**

NIF-NOT CP Center  
Ul. Krasinskiego 13  
40-019 Katowice POLAND  
Tel/Fax: (48) 32 156 55 07  
Contact: Prof. Zygfrzyd Nowak

**PORTUGAL****Instituto Nacional de Engenharia e Tecnologia Industrial – INETI**

Estrado do Paco de Lumiar  
1699 Lisboa

PORTUGAL

Tel: (351) 1 716 51 41

Fax: (351) 1 715 40 84

Email: constanca.peneda@mail.  
ineti.pt

**ROMANIA****Romanian Pollution Prevention Centre**

Bd Constructorilor 20

Bucaresti 6

77766 ROMANIA

Tel: (40) 1 22 12050/2211948

Fax: (40) 1 22 11899

**SLOVAK REPUBLIC****UNEP-NCPC Slovak**

Pionierska 15, 831 02

Bratislava

SLOVAK REPUBLIC

Tel/Fax (421) 7 259 015

Email: scpc@chft.stuba.sk

www: www.ic1.chft.stuba.sk/CPC/

Contact: Viera Feckova

**SPAIN****Centre d'Iniciatives per a la Produccio Neta**

Travessera de Gracia, 56

08006 Barcelona SPAIN

Tel: (34) 93 4147090

Fax: (34) 93 4144582

Email: prodneta@cipn.es

Contact: Victor Macia

**TANZANIA****NCPC Tanzania**

Tanzania Industrial

Research & Development Organization

PO Box 23235

Dar-es-Salaam

UNITED REPUBLIC OF TANZANIA

Tel: (255) 51 668105/668979

Fax: (255) 51 668 147

Email: cpct@udsm.ac.tz

Contact: C.L.C. Migiro

**TUNISIA****UNEP-NCPC Tunisia**

Centre de Production Plus Propre

Colisee Soula,

Escalier D 2e etage

2092 El Manar II

TUNISIA

Tel: (216) 1 872 688

Fax: (216) 1 872 688

Email: cp3@cp3.com.tn

Contact: Mr Rachid Nafti

**UNITED STATES**

[Note: most U.S. states have government or university-based pollution prevention technical assistance programs. Only a few are mentioned here.]

United States Environmental Protection Agency

Office of Pollution Prevention and Toxics

Washington, DC 20460

US EPA (MC7409)

401 M Street SW

Washington, DC 20460

Fax: (1) 202 260 2219

Email: eichelberger.maureen@  
epamail.epa.gov

<http://www.epa.gov>

An extensive overview of pollution prevention initiatives at state and national level is available from:

[http://www.epa.gov/opptintr/  
ChemLibPPN](http://www.epa.gov/opptintr/ChemLibPPN)

Envirosense

[http://www.epa.gov/envirosense/  
index.html](http://www.epa.gov/envirosense/index.html)

A comprehensive resource on pollution prevention case studies



### **US National Pollution Prevention Roundtable**

2000 P Street, NW  
Suite 708  
Washington, DC 20036  
Tel: (1) 202 466 P2P2  
Fax: (1) 202 466 7964  
<http://www.p2.org/>

The roundtable is the main US state and local officials' network on pollution prevention. It provides expertise and information exchange on pollution prevention process changes and develops clean production policy. The roundtable conducts a yearly conference, and has listings of all pollution prevention programs in the U.S. They have several publications available on their web page.

### **EP3 Programme**

US Agency for International Development  
R&D/ENR. SA 18  
Room 503  
20523-1812 Washington, DC  
Tel: (1) 703 875 4518  
Fax: (1) 703 875 4639  
Contact: James Gallup

EP3 conducts pollution prevention projects in developing countries.

### **Center for Clean Products and Clean Technologies**

University of Tennessee Knoxville  
(see under Ecodesign)

### **Massachusetts Toxic Use Reduction Institute (TURI)**

University of Massachusetts at Lowell  
One University Avenue  
Lowell, MA 01854-2881  
Tel: (1) 978 934 32 75  
Fax: (1) 978 938 30 50  
Email: [clarkjan@turi.org](mailto:clarkjan@turi.org)  
<http://www.turi.org/>  
Contact: Janet Clark

TURI is an excellent source of technical information on pollution prevention within companies as well as occupational health

information. TURI maintains a technology library, conducts training, and has a technical web page with numerous links. The university also houses the non-profit Lowell Center for Sustainable Production (LSCP), which links occupational and environmental health, sustainability and economic and social well-being. LCSP is the technical clearinghouse for the Health Care without Harm Campaign, which seeks to reduce hospital-based pollution.

### **P2cP Consulting**

423 12<sup>th</sup> Street SE  
Washington, DC 20003  
Tel: (1) 202 546 8542  
Email: [kirsi@worldnet.att.net](mailto:kirsi@worldnet.att.net)  
Contact: Kirsten Oldenburg

Expertise in international cleaner production.

### **Inform Inc**

120 Wall St  
New York, NY 10005-40001  
Tel: (1) 212-361 2400  
Fax: (1) 212-361 2412  
<http://www.informinc.org>  
Contact: Mark Dorfman

Expertise on Right to Know, pollution prevention and product design and take-back. Many industry case studies and excellent publications.

### **ZIMBABWE**

#### **Zimbabwe NCPC**

c/o UNIDO Office  
67-69 Union Avenue  
PO Box BW 1635  
Borrowdale, Harare  
ZIMBABWE  
Tel: (263) 4 731779  
Fax: (263) 4 7311779  
E-mail: [cpczim@harare.iafrica.com](mailto:cpczim@harare.iafrica.com)  
Contact: Lewin Mombemuriwo


**PUBLICATIONS**
Industrial Pollution Prevention Handbook

Harry Freeman  
McGraw Hill, Inc. 1995

Journal of Cleaner Production

Elsevier Sciences  
The Boulevard  
Langford Lane  
Kidlington  
Oxford OX5 1GB  
Tel: (44) 1865 843000  
Fax: (44) 1865 843010  
<http://www.elsevier.nl>

OECD Proceedings

Cleaner Production and Waste Minimisation in OECD and Dynamic Non-Member Economies. This and other OECD publications available from their web site [www.oecd.org](http://www.oecd.org) or  
Tel: (1) 202-785-6323  
Fax: (1) 202-785-0350

Pollution Prevention Review

A US-based journal, focussing on legislation, process changes  
Pub. John Wiley & Sons Inc  
605 Third Avenue  
New York, NY 10158  
Tel: (1) 212 850 8776

Pollution Prevention: A Practical Guide for State and Local Government

Ed. D. Wigglesworth  
Lewis Publishers, 1993  
CRC Press Inc.  
2000 Corporate Blvd NW  
Boca Raton, Florida 33431

Prosperity without Pollution: The Prevention Strategy for Industry and Consumers

Hirschhorn and Oldenburg  
Van Nostrand Reinhold, 1991

Toxics Watch, 1995

and Profits Through Pollution Prevention

Inform Inc. (see above)

UNEP Cleaner Production Programme Publications:

Government Strategies and Policies for Cleaner Production;  
Cleaner Production Worldwide I and II  
Cleaner Production in the Asia Pacific Economic Cooperation Region  
Cleaner Production in the Mediterranean Region  
Cleaner Production in China  
Life Cycle Assessment: What it is and How to do it  
Ecodesign manual: A Promising Approach

Poland, The Green Tiger - Clean Production, The Only Way Forward October 1994

Greenpeace International  
Keizersgracht 176  
1016 DW Amsterdam  
THE NETHERLANDS  
Tel: (31) 20 523 6222  
Fax: (31) 20 523 6200  
WWW: <http://www.greenpeace.org>

Also, many other documents on Clean Production, chlorine, and PVC available.



## PUBLIC ACCESS TO INFORMATION

**Public access to information has been a proven factor in reducing company emissions of hazardous substances yet few countries have an operational reporting system. There is currently minimal informative labeling on product contents or their life-cycle impacts except for food and cosmetic products in some countries.**

**Inform Inc**  
(see above)

**OECD Pollutant Release and Transfer Registers (PRTR)**

Guidance Manual for Governments, 1996

Available from OECD (see above)  
<http://irptc.unep.ch/prtr/>  
 Contact: Claudia Fenerol  
 This is the final report of a series of 5 international workshops to establish the Right to Know in all countries. The guidebook shows governments how to establish a public reporting system in their country.

**Right to Know Network  
 OMB Watch/Unison Institution**

1742 Connecticut Avenue, NW  
 Washington, DC 20009  
 Tel: (1) 202-234-8494  
 Fax: (1) 202-234-8584  
[www.rtk.net](http://www.rtk.net)

Excellent source of databases on environmental impacts by firm or region.

**Public information on Material Safety Data Sheets (MSDS)**

**information.** These sheets provide concise information on the occupational health risks from exposure to individual chemicals/ products.

<http://research.nwfsc.noaa.gov/msds.html>

**Working Group on Community Right to Know**

US PIRG Education Fund

218 D St SE,  
 Washington, DC 20003  
 Tel: (1) 202 544 9586  
 Fax: (1) 202 546 2461  
 Email: [orump@rtk.net](mailto:orump@rtk.net)  
 Contact: Paul Orum

**US Toxics Release Inventory (TRI)**  
 EPA Office of Pollution Prevention and Toxics

TRI User Support Service to help the public obtain/understand TRI data.  
 Tel: (1) 202 260 1531

**PUBLICATIONS**

**A Benchmark for Reporting on Chemicals at Industrial Facilities;**

also, The Right to Know:  
 The Promise of Low-Cost Public Inventories of Toxic Chemicals

F Irwin, et al.  
 World Wildlife Fund, Washington, 1995  
 WWF Publications  
 PO Box 4866  
 Hampden Post Office  
 Baltimore, MD 21211  
 Tel: (1) 410 516 6951



## ECOLOGICAL ECONOMICS:

**Economics based in environmental reality. The need to move to an economy for sustainability via ecological tax reforms, the removal of subsidies on resource intensive and ecologically damaging enterprises, socially equitable labor and how to make the transition**

### **Center for Renewable Energy and Sustainable Technology (CREST)**

1200 18th St NW #900  
Washington, DC 20036  
Tel: (1) 202-530-2202  
Fax: (1) 202-887-0497  
<http://solstice.crest.org/index.shtml>

CREST produces educational multimedia CD-ROMs and operates an internet service for the sustainable energy field. It also has extensive resources on ecological tax reform.

### **Gil Friend and Associates**

48 Shattuck Square - Suite 103  
Berkeley, CA 94704  
Tel: (1) 510-548-7904  
Fax: (1) 510-849-1341  
Email: [gfriend@eco-ops.com](mailto:gfriend@eco-ops.com)  
<http://www.igc.apc.org/eco-ops/welcome.html>

Helps companies and communities gain competitive advantage and breakthrough economic

### Beyond Growth : the economics of sustainable development.

Daly, Herman  
Beacon Pub.  
Boston, MA 1996.

### Beyond the year 2000: the transition to sustainable consumption:

Document for the conference and seminar: "Sustainable consumption" held in The Hague, 1993.  
International Organization of Consumers Unions The Hague: 1993.

performance by building the laws of nature into their business operating systems. Publishes the *New Bottom Line Newsletter* on sustainable business.

### **Institut für ökologische Wirtschaftsforschung (IOW)**

(Ecological Economics Research Institute)

Regional Office Baden-Württemberg  
Bergheimer Strasse 95  
D-69115 Heidelberg GERMANY  
Tel: (49) 6221 167954  
Fax: (49) 6221 27060

A public research institute specializing in ecological tax reform and resource efficiencies

### **Wuppertal Institut für Klima Umwelt und Energie**

(see above)

Contact: Friedrich Schmidt-Bleek

Newsletter and leading book on ecological tax reform.

## **PUBLICATIONS**

### Caring for the Future: making the decades provide a life worth living:

Report of the Independent Commission on Population and Quality of Life.  
Oxford University Press,  
Oxford, UK 1996.

Environmental Accounting: Energy and Environmental Decision Making.

Odum, Howard T.  
John Wiley & Sons  
New York, 1996. 370 p.



Environmental Taxes: Implementation and Environmental Effectiveness

European Environment Agency

Kongens Vytov 6

DK-1050 Kobenhavn K

Denmark

Tel: (45) 33 36 71 00

Fax: (45) 33 36 71 99

Email: EEA@EEA.DK

<http://www.eea.dk>

The European Environment Agency is the lead environmental information source for European countries. It does not regulate or legislate, but facilitates public access to European environmental information. EEA currently is undertaking projects on life cycle assessment, clean production and risk assessment.

Fine Tuning Taxes for Energy Eco-efficiency :

A study commissioned for the National Roundtable on the Environment and the Economy : Greening the budget workshop October 17, 1995. Drayton Valley, Alberta, Canada

Cairns, Stephanie, Barbara Campbell and Rob Macintosh.

The Pembina Institute for appropriate Development, 1995.

The Genuine Progress Indicators:

summary of data and methodology.

Clifford Cobb, Ted Halstead and Jonathan Rowe.

Redefining Progress,

San Francisco, CA: 1995.

Getting down to Earth: practical applications of ecological economics.

Constanza, Robert, Olman Segura and Juan Martinez-Alier, (eds).

Island Press, Washington, DC, 1996

The Growth Illusion

Richard Douthwaite

Resurgence Book

Green Books, Ford House, Hartland

Bideford, Devon EX 29 6EE

UNITED KINGDOM

Moving towards sustainable consumption and production:

Building a community of concern and commitment.

Environment Canada Conference May 26-27, 1997:

Chateau Cartier Hotel, Aylmer, Quebec Canada

Various authors/papers

The North, the South and the Environment : Ecological Constraints and the Global Economy.

Bhaskar, V. and Andrew Glyn.

Earthscan Publications Ltd.,

London: 1995.

Organization for Economic Cooperation and Development.

Expert seminar on sustainable consumption and production patterns, Summary report.

Massachusetts Institute of Technology:

Cambridge, MA (18 - 20 December 1994)

<http://www.iisd.ca/linkages/consume/mit.html>

Oslo Roundtable Conference on Sustainable Production and Consumption

Norway. Ministry of Environment 1995

<http://www.iisd.ca/linkages/consume/oslo000.html>

<http://odin.dep.no/html/nofovalt/depter/md/publ/sustain/doc14.html#O1oRound>

Paradigms in Progress: life beyond economics.

Henderson, Hazel

Knowledge Systems

Indianapolis, IN, 1991.

Pricing the planet: economic analysis for sustainable development.

May, Peter H. and Ronaldo Seroa da Motta, (eds.)

Columbia University Press,

New York 1996.



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Whole Life Economics: Revaluing Daily Life.  
Brandt, Barbara  
New Society,  
Philadelphia, PA 1995.



## LABOUR/JUST TRANSITION

**University of Amsterdam Research and Consultancy Centre on Chemistry, Labour and the Environment (Chemiewinkel)**

Postbus 20242  
1000 HE Amsterdam  
THE NETHERLANDS  
Tel: (31) 20 5255 607  
Fax: (31) 20 5255 615  
Email: p.v.broekhuizen@chem.uva.nl  
<http://www.chem.uva.nl/cw/>  
Contact: Dr. Pieter van Broekhuizen

**Comisiones Obreras**

Departamento de Medio Ambiente  
Fernandez de la Hoz 12  
28010 Madrid  
Tel: (34) 1-319-7653  
Fax: (34) 1-310-4804  
Email: eblount@ccoo.es  
Contact: Estefania Blount

Comisiones is the largest trade union in Spain and their Environment Department is very active on cleaner production initiatives. They hold conferences, workshops, produced a video and publish a newsletter, Daphnia (in Spanish)

**Canadian Labour Congress**

2841 prom. Riverside Dr.  
Ottawa, ONT  
CANADA K1V 8X7  
Tel: (1) 613 521-3400, ext 418  
Fax: (1) 613-521-4655  
Contact: Dave Bennett

**The Labor Institute**

853 Broadway, New York, NY 10003  
Tel: (1) 212-674-3322  
email: lesleopold@aol.com  
Contact: Les Leopold

The Labor Institute has worked for several years with the Oil Chemical and Atomic Workers Union (OCAW) to develop policy regarding chemical (particularly chlorine) phase-outs and just transition.

**Trade Union Advisory Council to the OECD**

52B Penshurst Rd  
London E9 7DT  
UNITED KINGDOM  
Tel: (44) 171 2196259  
Fax: (44) 171 2194866  
Contact: Paul Hackett

OECD has published several documents on benchmarking for labor involvement in Clean Production activities.

## PUBLICATIONS

The Labor Institute  
(see above)  
Jobs and Environment Workbook  
Chlorine Just Transition Workbook  
other speeches and summaries.

Clean Production: from industrial dinosaur to eco-efficiency, 1994  
David Gee  
Manufacturing Science Finance Union  
64-66 Wandsworth Common North Side  
London, SW18 2SH UNITED KINGDOM

Tel: (44) 181 871-2000  
Fax: (44) 181 877-1160

Evaluation of the Relevance for Worker Health and Safety of Existing Environmental Technology Data-bases for Cleaner and Inherently Safer Technologies  
Eronomia, LTD, Athens, April, 1996  
Contact: Dr. Nicholas Ashford  
Tel: (1) 617-253-1664  
Fax: (1) 617-253-7140  
Email: nashford@mit.edu


**BUSINESS POLICIES ON CLEANER PRODUCTION**

[Note: while many of the documents produced by these business coalitions have excellent language about the need for clean production, actions by the coalitions or their individual members may be far from clean production]

**Coalition for Environmentally Responsible Economies (CERES)**

711 Atlantic Avenue  
Boston, MA 02111  
Tel: (1) 617-451-0927  
Fax: (1) 617-482-2028

**Keidanren (Japan Federation of Economic Organizations)**

1-9-4 Othe-machi  
Chiyoda-ku  
Tokyo 100 JAPAN  
Fax: (81) 3 5255 6231  
<http://www.envirolink.org/sbn/>

**International Chamber of Commerce**

38 Cours Albert 1er  
75008 Paris  
FRANCE  
Tel: (33) 1 49532828  
Fax: (33) 1 49532859  
<http://www.iccwbo.org/>

The ICC promotes international trade, investment and the market economy system worldwide; it makes rules that govern the conduct of business across borders;

It published the Voluntary Business Charter for Sustainable Development which includes the precautionary principle and clean products among its articles.

**World Business Council for Sustainable Development (WBCSD)**

160 Route de Florissant  
CH 1231 Conches  
Geneva, SWITZERLAND  
Tel: (41) 22 8393 100  
Fax: (41) 22 8393 131  
Email: 100277.2732@compuserve.com  
<http://www.wbcSD.ch/>

Contact: Mr. Jan Olaf Willums

The WBCSD is a coalition of 125 international companies united by a shared commitment to the environment and to the principles of economic growth and sustainable development. It has developed and published widely on the concept of eco-efficiency.

**Mr Claude Fussler**

Dow Europe, S.A.  
Bachtobelstrasse 3  
CH-8810 Horgen  
Switzerland  
Tel: (41) 1 728 2403  
Fax: (41) 1 728 2097

A proponent of Eco-Efficiency and removal of subsidies from unsustainable businesses. Wrote book entitled Driving Eco-Innovation.

**The Greening of Industry Network**

Twente Centre for Studies of Science Technology & Society  
TWR.RD 319 P.O. Box 217  
7500 AE Enschede  
THE NETHERLAND  
Tel: (31) 53 489 4132  
Fax: (31) 53 489 4775  
Email: e.m.l.brand@cstm.utwente.nl

also

**Clark University**
**The George Perkins Marsh Institute**

950 Main Street  
Worcester, MA 01610-1477  
Tel: (1) 508 751 4607  
Fax: (1) 508 7514 600  
Email: kfischer@vax.clarku.edu  
<http://www.tufts.edu/as/polsci/Greening/>

Contact: Kurt Fischer



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**PUBLICATIONS**

Changing Course: a global business perspective on development and the environment.

Schmidheiny, Stephan  
MIT Press,  
Cambridge, MA 1992.

Green Business: Hope or Hoax?

Green Books  
For House, Hartland  
Bideford, Devon  
UNITED KINGDOM EX39 6EE

ISO 14001 GUIDANCE MANUAL

Available online at  
<http://www.ncedr.org>  
An ISO 14001 audit is meant to develop a systematic management approach to the environmental concerns of an organization. The goal of this approach is continual improvement in environmental management but there is no specific goal regarding measurable goals in toxic use reduction, or resource efficiencies

The OECD Guidelines for Multinational Enterprises

OECD  
(see above)

Sustainable production and consumption: a business perspective.

World Business Council for Sustainable Development  
Geneva, Switzerland:  
WBCSD, 1996.

Trust Us. Don't Track Us: An Investigation of the Chemical Industry's "Responsible Care" Program

Carolyn Hartmann, 1998  
US Public Interest Research Group



## EDUCATIONAL INSTITUTIONS

The following give degree courses in cleaner production and/or hold conferences.

### **Agricultural University of Norway**

Department of Engineering  
Box 5065

1432 Aas NORWAY

Tel: (47) 6494 8666

Fax: (47) 6494 8810

<http://www.nlh.no/sevunlh/kortekurs/98306.htm>

Offers courses on ecological engineering.

More information available from

Prof. Petter D. Jenssen,

Institute of Agricultural Engineering,

Tel: (47) 64 94 86 85,

Fax: (47) 64 94 8810,

email: [petter.jenssen@itf.nlh.no](mailto:petter.jenssen@itf.nlh.no)

### **Dalhousie University**

School for Resource and Environmental Studies

Halifax, Nova Scotia

CANADA B3H 3E2

Tel: (1) 902-494-3632

Email: [rcote@is.dal.ca](mailto:rcote@is.dal.ca)

WWW: <http://quasar.sba.dal.ca:2000/sres/BURN/home.html>

Contact: Ray Cote

Involved in industrial ecology projects

### **Delft University of Technology**

Faculty of Industrial Design Engineering

Jaffalaan 9,

2628 BX Delft THE NETHERLANDS

Tel: (31) 15 2782738

Fax: (31) 15 2782956

Email: [J.A.M.Remmerswaal@io.tudelft.nl](mailto:J.A.M.Remmerswaal@io.tudelft.nl)

### **Erasmus University**

Erasmus Centre for Environmental Studies

PO Box 1738

Burgemeester Oudlaan 50

3000 dr Rotterdam

The Netherlands

Tel: (31) 10 4082381

Fax: (31) 10 2120834

Email: [baas@mil.fsw.eur.nl](mailto:baas@mil.fsw.eur.nl)

Offers doctoral program in Clean Production as well as training and projects in various disciplines.

### **Pollution Prevention and Education Center (PPERC)**

Occidental College

1600 Campus Road

Los Angeles, CA 90041

Tel: (1) 213-259-2566

Fax: (1) 213-259-2734

Email: [pperc@oxy.edu](mailto:pperc@oxy.edu)

<http://www.oxy.edu/departments/pperc/>

Contact: Robert Gottlieb

PPERC is based at Occidental College and the University of California, Los Angeles. It offers project-based research as well as pollution prevention internships, course work and training. It has several associated centers on and sponsors pollution prevention fora and collaborative activities.

### **University of Lund**

The International Institute for Industrial Environmental Economics

P.O. Box 196

S-22100 Lund

SWEDEN

Tel: (46) 46 2220 200

Fax: (46) 46 2220 210

Email: [Thomas.Lindhqvist@iiiee.lu.se](mailto:Thomas.Lindhqvist@iiiee.lu.se)

<http://www.lu.se/IIIEE/hp>

Contact: Thomas Lindhqvist

Offers a Masters course (with free tuition) in Cleaner Production. Expertise in extended producer responsibility, cleaner production, product design, resource reduction.


**University of Massachusetts at Lowell**

Work Environment Program  
 One University Avenue  
 Lowell, MA 01854-2881  
 Tel: (1) 978-934-3250  
 Fax: (1) 978-452-5711  
<http://www.uml.edu>  
 Contact: Ken Geiser

Offers a masters and doctoral degree in Clean Production and Pollution Prevention integrated with worker health and safety issues.

**University of Michigan National Pollution Prevention Center for Higher Education**

Dana Building 430 E University  
 Ann Arbor, MI 48109-1115  
 Tel: (1) 734 936 8386  
 Fax: (1) 734 647 5841  
 Email: [nppc@umich.edu](mailto:nppc@umich.edu)  
<http://www.snre.umich.edu/nppc/>  
 Contact: Mr. Greg Keoleian

A clearinghouse for information on university based pollution prevention programs, the Center sponsors courses and publishes guidebooks and other documents.

**Universiteit van Amsterdam**

Milieukunde  
 Interfaculty Department of Environmental Science  
 Nieuwe Prinsengracht 130  
 108 VZ Amsterdam  
 THE NETHERLANDS  
 Tel: (31) 20 525 6206  
 Fax: (31) 20 525 6272  
 Email: [B.Hertz@frw.uva.nl](mailto:B.Hertz@frw.uva.nl)  
 Contact: Brigitte Hertz  
 Clean Production summer courses.

Pub UNEP, UETP-EEE; University-Enterprise Training Partnership in Environmental Engineering Education, IACEE – International Association of Continuing Engineering Education, Finnish Association of Graduate Engineers, and Technical University of Denmark, 1995  
 Tel: (358) 9 229 121  
 Fax: (358) 9 2291 2911  
 Email: [Riitta.Karki@tek.fi](mailto:Riitta.Karki@tek.fi)

This is an overview of institutions around the world that incorporate some aspects of cleaner production in their courses

**PUBLICATIONS**

Inventory on Cleaner Production Education and Training  
 Ed by M.S. Jorgensen, et al



## NETWORKS

### Clean Production Action

PO Box 12201  
London SW17 9ZL  
UNITED KINGDOM  
Tel/Fax: (44) 181 672 3454  
Email: bthorpe@web.net (Canada)  
ticknerj@woods.uml.edu (USA)  
iza@cpa-iza.u-net.com (UK)  
beckros@ebox.tninet.se (Sweden)  
uugluszy@otzo.most.org.pl (Poland)  
<http://www.rec.hu/poland/wpa/cpa.htm>

CPA is a network and consultancy for public advocacy groups. CPA's mission is to train advocacy and labor groups in clean production implementation strategies, serve as a technical clearinghouse for public interest groups on clean production and help integrate clean production into campaigns.

### Consumer's International

24 Highbury Crescent,  
London N5 1RX UNITED KINGDOM  
Tel: +44 171 226 6663  
Fax: +44 171 354 0607  
Email: consint@consint.org  
<http://www.consumersinternational.org/>

A non-profit federation of consumer organisations, dedicated to the protection and promotion of consumer interest. CI has two goals - to strengthen member organizations and the consumer movement in generation; and to fight for policies at the international level that respect consumer concerns. CI program areas include trade, environment, agriculture and consumer legislation.

### European Roundtable on Cleaner Production

Chairman: Prof. Dr Hans  
Schnitzer  
Institute for Process Engineering

Graz University of Technology  
A-8010 Graz  
Inffeldgasse AUSTRIA  
Tel: (43) 316 873/7461  
Fax: (43) 316 873/7469  
Email: schnitzer@glvt.tu-graz.ac.at  
<http://www.tu-graz.ac.at>

The roundtable is a European platform to foster sustainable development with the prime focus on cleaner production of products, processes and provision of services. The 1998 conference will take place in Portugal. For more information contact

INETI-ITA  
Email: ercp98@mail.ineti.pt  
WWW: [www.ineti.pt](http://www.ineti.pt)

### Friends of the Earth International

Friends of the Earth International  
Secretariat:  
P.O. Box 19199  
1000 GD Amsterdam  
THE NETHERLANDS  
Tel: (31) 20-6221369  
Fax: (31) 20-6392181  
Email: foeinti@antenna.nl  
<http://www.xs4all.nl/~foeint/ssp.html>

Friends of the Earth (FoE) International is a federation of autonomous environmental organisations from all over the world with members in more than 50 countries. FoE's sustainable societies campaign has generated much information on carrying capacity for sustainable consumption, most notably the studies done for Sustainable Europe.

### Northern Alliance for Sustainability (ANPED)

P.O. Box 12111  
3501 AC Utrecht  
THE NETHERLANDS  
Tel: (31) 30-2310300  
Fax: (31) 30-2340878



Email: [anped@anped.org](mailto:anped@anped.org)  
<http://www.anped.org>

ANPED is a network of North American, European, CEE and NIS, and Japanese groups working on sustainable development issues for the "North". They publish a newsletter and host various workshops throughout Europe.

### **Waste Prevention Association (OTZO)**

ul. Slawkowska 12,  
 31-014 Krakow,  
 POLAND  
 Tel/fax: (48) 12 222 264/147  
 Fax: (48) 12 212 107,  
 e-mail: [office@otzo.most.org.pl](mailto:office@otzo.most.org.pl)  
<http://www.rec.org/poland/wpa/wpa.htm>  
 Contact: Pawel Gluszynski

WPA is non-governmental environmental organisation supplying clean production information to a network mostly based in central and eastern Europe. WPA's mission is to promote Clean Production methodology, waste reduction at source, and environmentally friendly waste management, segregation and recycling, as well as rational utilisation of "historical" waste.

### **Global Eco-village Network**

G.E.N.  
 Ginsterweg 5  
 D-31595 Steyerberg  
 GERMANY  
 Tel: (49) 57 64 9 30 40  
 Fax: (49) 57 64 23 68  
 Email: [even@lebensgarten.gaia.org](mailto:even@lebensgarten.gaia.org)

A network of communities who exchange information on sustainable development via listserv and conferences.

### **UNEP Cleaner Production Programme network**

The Cleaner Production Programme of UNEP publishes newsletter, convenes a bi-yearly international conference and

maintains a variety of workgroups and cleaner production centres. See under Cleaner Production.

### **Campaign for Responsible Technology**

Silicon Valley Toxics Coalition  
 760 N. First St.  
 San Jose, CA 95112  
 Tel: (1) 408-287-6707  
 Fax: (1) 408-287-6771  
 Email: [svtc@igc.apc.org](mailto:svtc@igc.apc.org)  
<http://www.igc.org/svtc/>

The Campaign for Responsible Technology (CRT) was established in 1991 to increase grassroots participation in national and international technology policy development. CRT consists of over 80 representatives from organizations throughout the U.S., and about 20 representatives from organizations in 11 other countries.

### **Environmental Defense Fund**

Pollution Prevention Alliance  
 1875 Connecticut Ave., NW  
 Washington DC 20009  
 tel 202-387-3500  
 fax 202-234-6049  
 email: [benjamin\\_smith@edf.org](mailto:benjamin_smith@edf.org)  
<http://www.edf.org>  
 Contact: Benjamin Smith

Coordinates a network of community and labor groups working on pollution prevention in the US/Canada Great Lakes region. Maintains an excellent web site on waste and chemical information at:  
[www.scorecard.org](http://www.scorecard.org)